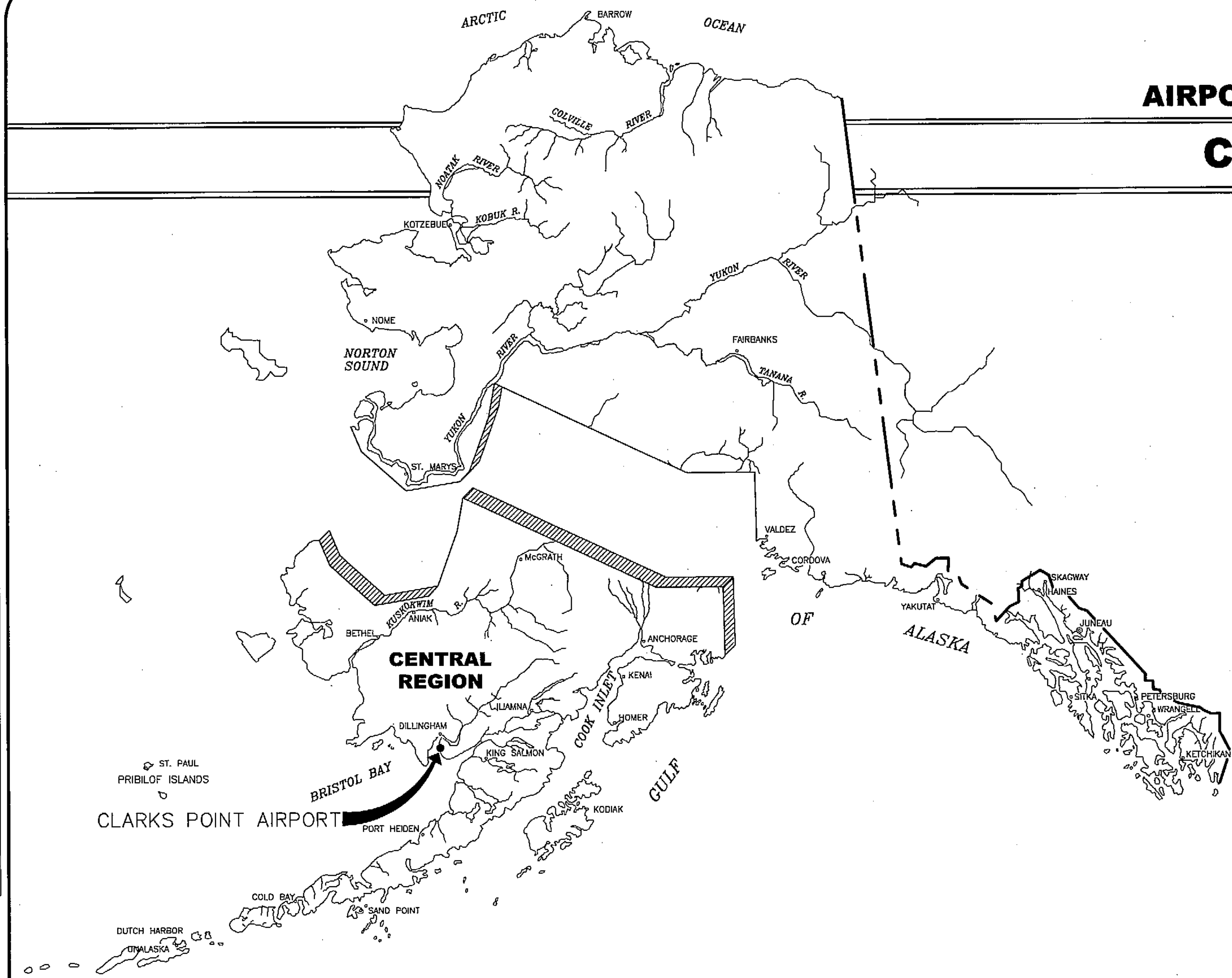
AIRPORT LAYOUT PLAN FOR

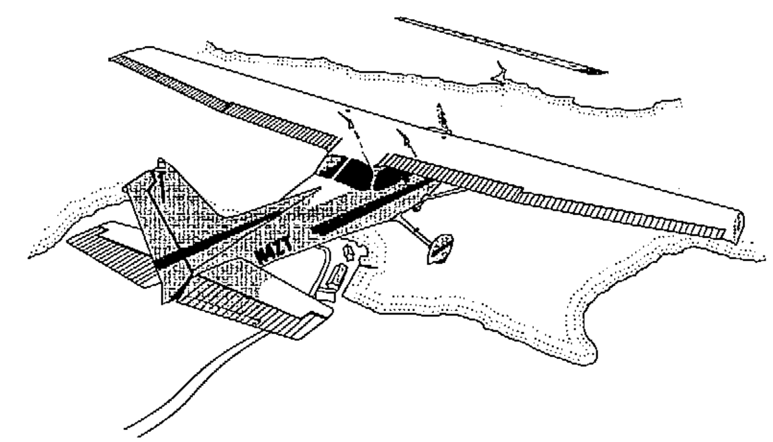
CLARKS POINT

2004



DRAWING INDEX

1 – COVER SHEET AND INDEX
2 – VICINITY MAP AND DATA TABLES
3 – PLAN AND PROFILE
4 – INNER PORTION OF THE APPROACH SURFACES
5 – AIRPORT AIRSPACE
6 – PROPERTY PLAN – EXHIBIT A
7 – NARRATIVE REPORT



SPONSORED BY
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

CONCUR Gordon C Keith **DATE** 5/13/04
GORDON C. KEITH, P.E. **CONSTRUCTION & OPERATIONS DIRECTOR**

APPROVED [signature] **DATE** 5-13-04
ROBERT A. CAMPBELL, P.E. **REGIONAL PRECONSTRUCTION ENGINEER**

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO ALP APPROVAL LETTER DATED 6/16/04

By: [signature] DATE: 6/18/04
FAA, AIRPORTS DIVISION
ALASKAN REGION, AAL-601

F.A.A. AIRSPACE REVIEW NUMBER:
04-AAL-45-NRA

CLARKS POINT
AIRPORT LAYOUT PLAN

SHEET 1 OF 7

Date Plotted:
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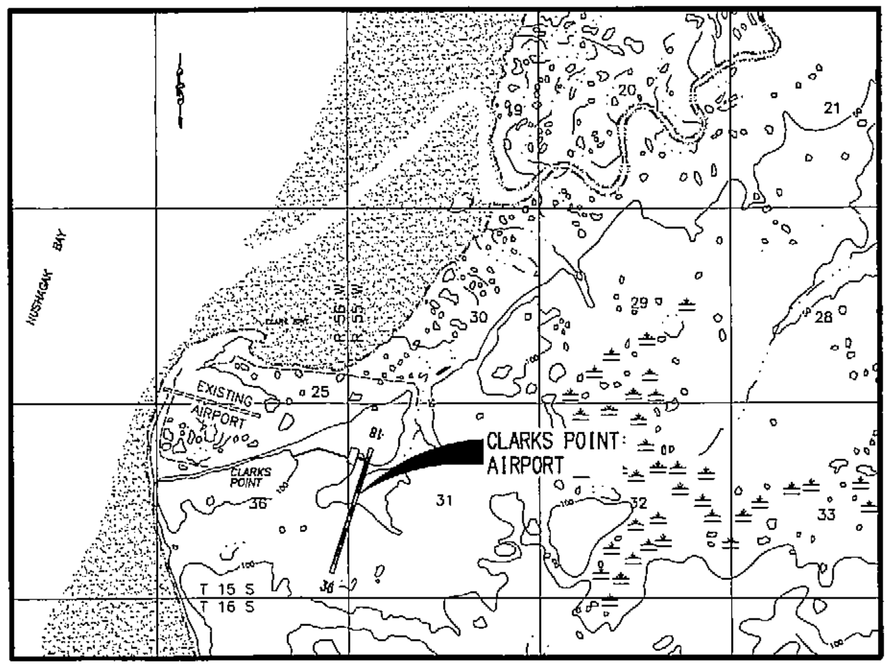
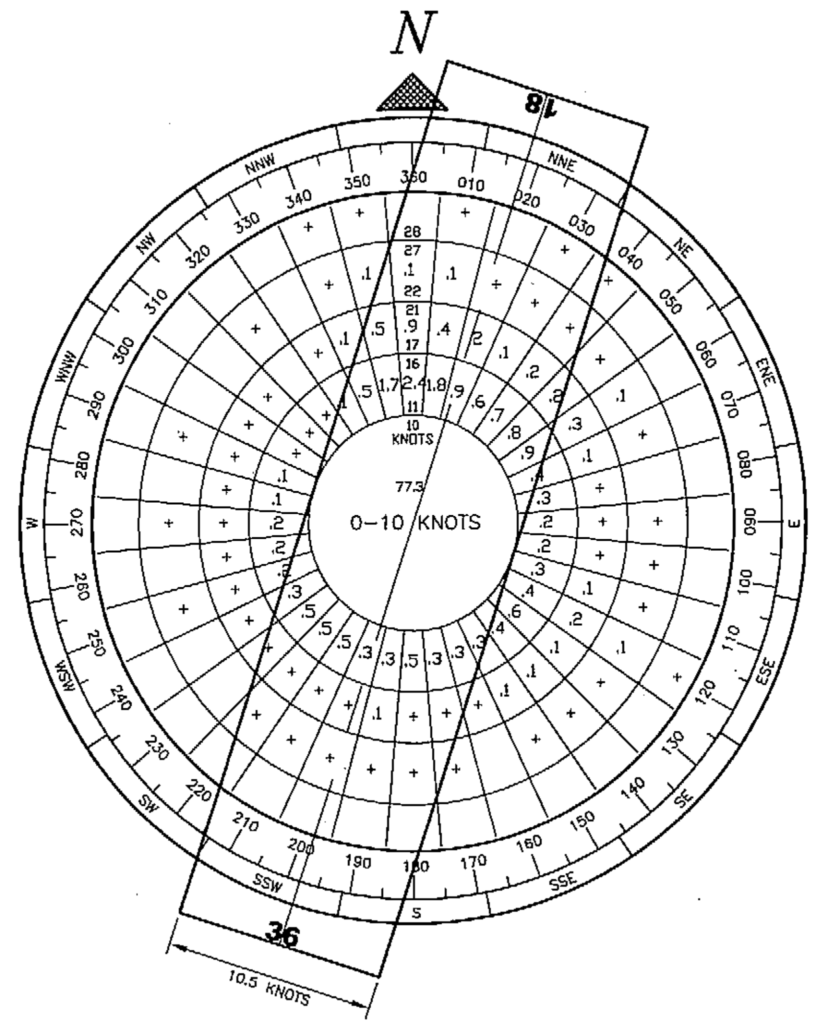


VICINITY MAP

T 15 S, R55 W, SEC. 31
T 15 S, R56 W, SEC. 36
SEWARD MERIDIAN
U.S.G.S. NUSHAGAK BAY (D-2), ALASKA



WIND DATA

NOTE: WIND SPEED IS INDICATED IN KNOTS.

WIND COVERAGE: 10.5 KNOTS - 94.97%
13 KNOTS - 97.41%

SOURCE: ALASKA STATE CLIMATE CENTER.
E.N.R.I. UNIVERSITY OF ALASKA ANCHORAGE
DATA IS FOR DILLINGHAM ALASKA WHICH IS LOCATED 15 MILES NORTH OF CLARKS POINT

PERIOD: JAN 1992 TO JAN 1995

MODIFICATIONS TO STANDARDS

ITEM	EXISTING	STANDARD	FUTURE

RUNWAY DATA TABLE

ITEM	RUNWAY 10/28 EXISTING	RUNWAY 10/28 FUTURE	RUNWAY 18/36 PROPOSED	RUNWAY 18/36 FUTURE
APPROACH SURFACES	20:1	ABANDONED	20:1	20:1
VISIBILITY MINIMUM	>1 MILE		>1 MILE	>1 MILE
INSTRUMENT RUNWAY	V		V	NPI
RUNWAY SURFACE	GRAVEL		GRAVEL	GRAVEL
PAVEMENT STRENGTH lbs.	N/A		N/A	N/A
RUNWAY TYPE	UNKNOWN		UTILITY	UTILITY
% WIND COVERAGE 10.5 KNOTS	86.54%		94.97%	94.97%
13 KNOTS	91.75%		97.41%	97.41%
RUNWAY DIMENSIONS	70' X 2600'		60' X 3200'	60' X 3200'
RUNWAY SAFETY AREA WIDTH	100'		120'	120'
SAFETY AREA LENGTH BEYOND RUNWAY END	UNKNOWN		240' / 240'	240' / 240'
RUNWAY END COORDINATES (N.A.D. 83)				
RUNWAY 18 STA. 60+95 LAT.			58°50'16.26"N	58°50'16.26"N
LONG.			158°31'36.43"W	158°31'36.43"W
RUNWAY 36 STA. 28+95 LAT.			58°49'46.28"N	58°49'46.28"N
LONG.			158°31'55.21"W	158°31'55.21"W
RUNWAY TOUCHDOWN ELEVATION	UNKNOWN		71.3' / 72'	71.3' / 72'
EFFECTIVE RUNWAY GRADE	UNKNOWN		0.61%	0.61%
RUNWAY LIGHTING	NONE		MIRL	MIRL
RUNWAY MARKING	NONE		NONE	NONE
RUNWAY PROTECTION ZONE (RPZ) DIMENSIONS	250' X 450' X 1000'		500' X 700' X 1000'	500' X 700' X 1000'
RUNWAY OBJECT FREE AREA (OFA) DIMENSION	250'x2880'		400'x3480'	400'x3480'
RUNWAY VISUAL AND INSTRUMENT NAVAIDS	NONE		NONE	PAPI/REIL

AIRPORT DATA TABLE

ITEM	EXISTING	FUTURE
ICAO IDENTIFIER	NONE	
NATIONAL AIRPORT IDENTIFIER	CPL	
AIRPORT ELEVATION (MSL NAVD88)	15.1'	72.0'
AIRPORT REFERENCE POINT (ARP NAD 83) LAT.	58°50'32.30" N	58°50'01.27" N
LONG.	158°32'42.84" W	158°31'45.82" W
MEAN MAX. TEMPERATURE, HOTTEST MONTH (JULY)	64°F	64°F
AIRPORT AND TERMINAL NAVIGATION AIDS	NONE	NONE
AIRPORT APPROACH CATEGORY	A	B
AIRPORT DESIGN GROUP	I	I
TAXIWAY LIGHTING / MARKING	NONE	M.I.R.L.
SURVEY SOURCE & TYPE	NONE	ANP
MAGNETIC DECLINATION, YEAR	16°38'E,2004 -0°11' PER YEAR	

LEGEND

ITEM	EXISTING	FUTURE
AIRPORT REFERENCE POINT (A.R.P.)		
ANTENNA		
BLUFF		
BUILDINGS		
BUILDING RESTRICTION LINE		
FENCE	—X—X—X—	—X—X—X—
PAPI		
PROPERTY LINE		
REIL		
ROADWAYS		
ROTATING BEACON		
SHORELINE		
THRESHOLD		
TOPOGRPHIC CONTOURS	100	100
TREES		
VASI		
WIND CONE AND SEGMENTED CIRCLE		

TABLES ARE BASED ON ALP CHECKLIST (REVISED FOR ALASKA REGION - 12/15/2003)

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO ALP APPROVAL LETTER DATED 6/18/04

By: [signature] DATE: 6/18/04
FAA, AIRPORTS DIVISION
ALASKAN REGION, AAL-601

F.A.A. AIRSPACE REVIEW NUMBER: 04-AAL-45-NRA

BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

APPROVED: [signature] STEPHEN M. RYAN, P.E. DESIGN SECTION CHIEF
APPROVED: [signature] HARVEY M. DOUTHIT, P.E. PROJECT MANAGER

DATE 2004
DESIGN BRH
DRAWN MGT
CHECKED TJS

CLARKS POINT AIRPORT
AIRPORT LAYOUT PLAN
VICINITY MAP AND DATA TABLES

SHEET 2 OF 7

Date Plotted: 5/11/2004 10:39:54 AM ADT
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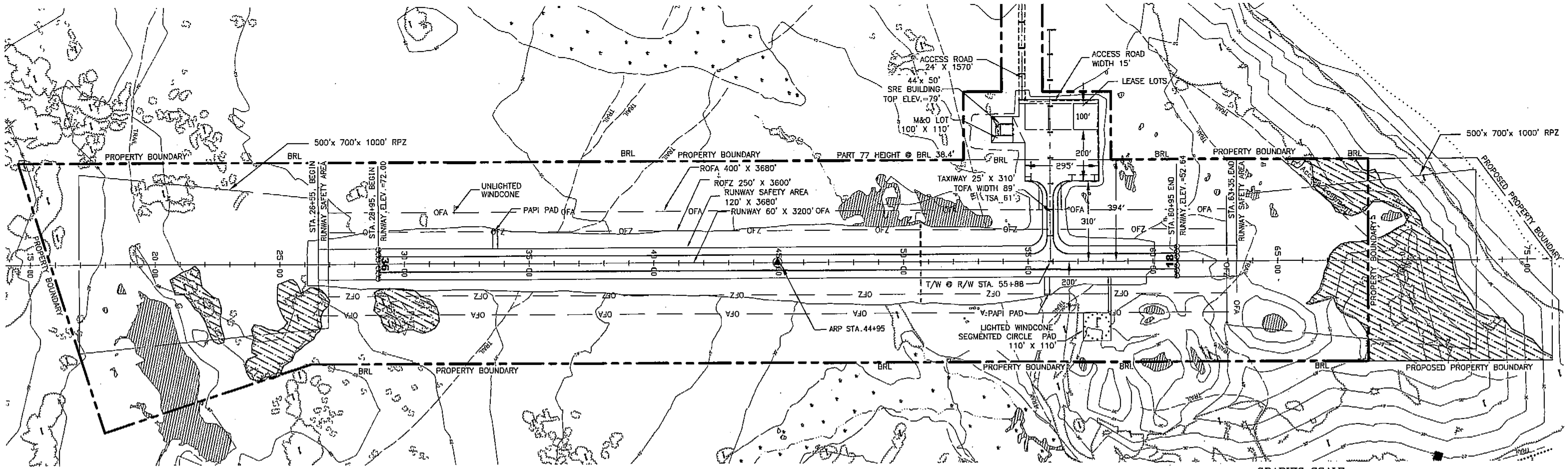
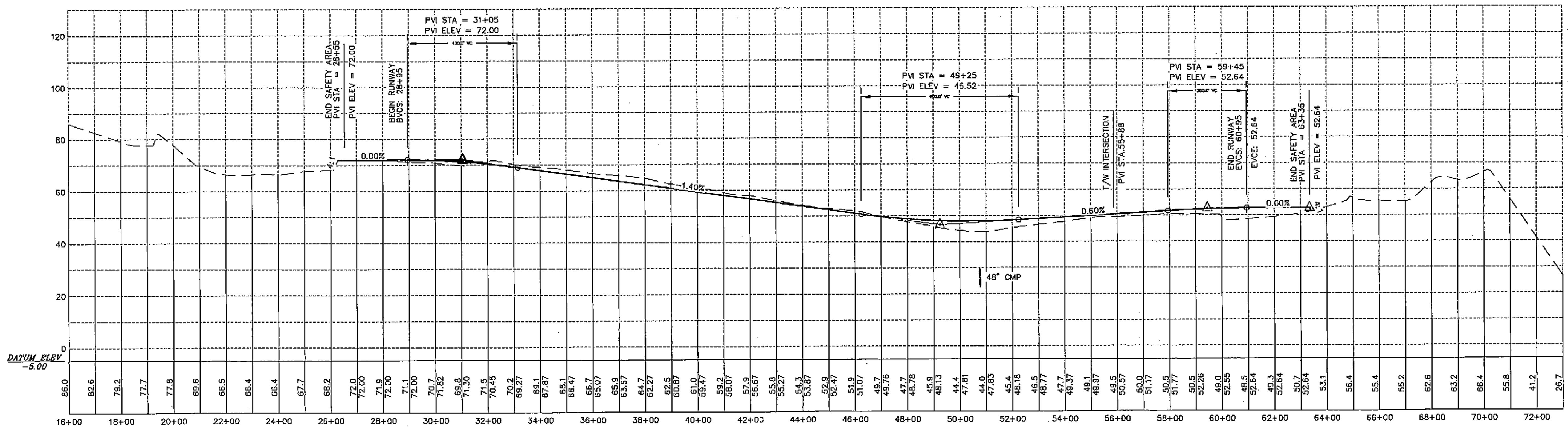


NO OFZ OBJECT PENETRATIONS.
NO THRESHOLD SITING SURFACE OBJECT PENETRATIONS.

BRUSH TO BE REMOVED

MAG. DEC.
16°38'(NGDC)
FEB. 2004

GRAPHIC SCALE
200 0 100 200 400 800
(IN FEET)



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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

APPROVED: [signature]
STEPHEN M. RYAN, P.E. — DESIGN SECTION CHIEF

APPROVED: [signature]
HARVEY M DOUTHIT, P.E. — PROJECT MANAGER

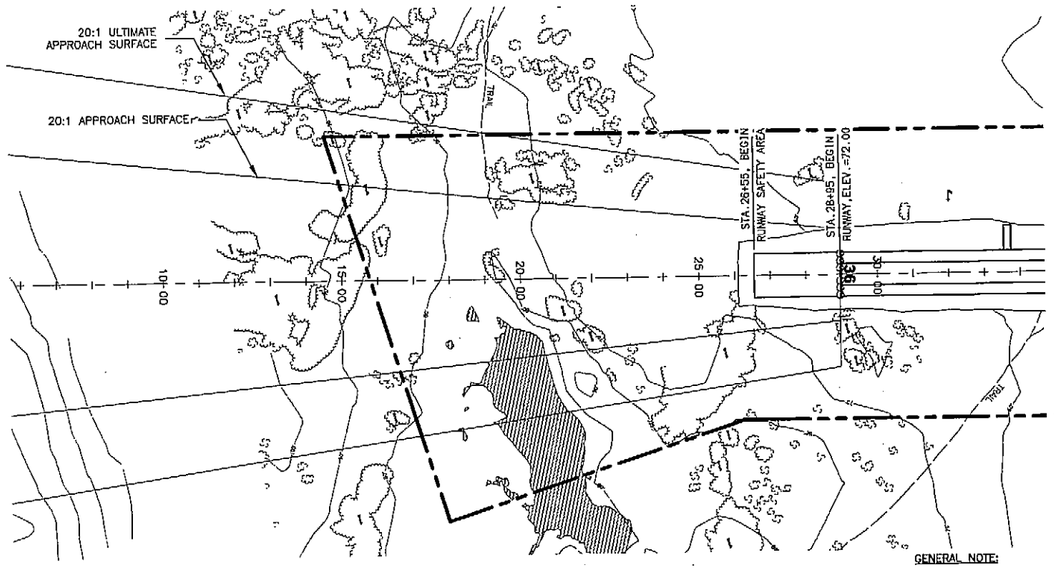
DATE 2004
DESIGN BRH
DRAWN MCT
CHECKED TJS

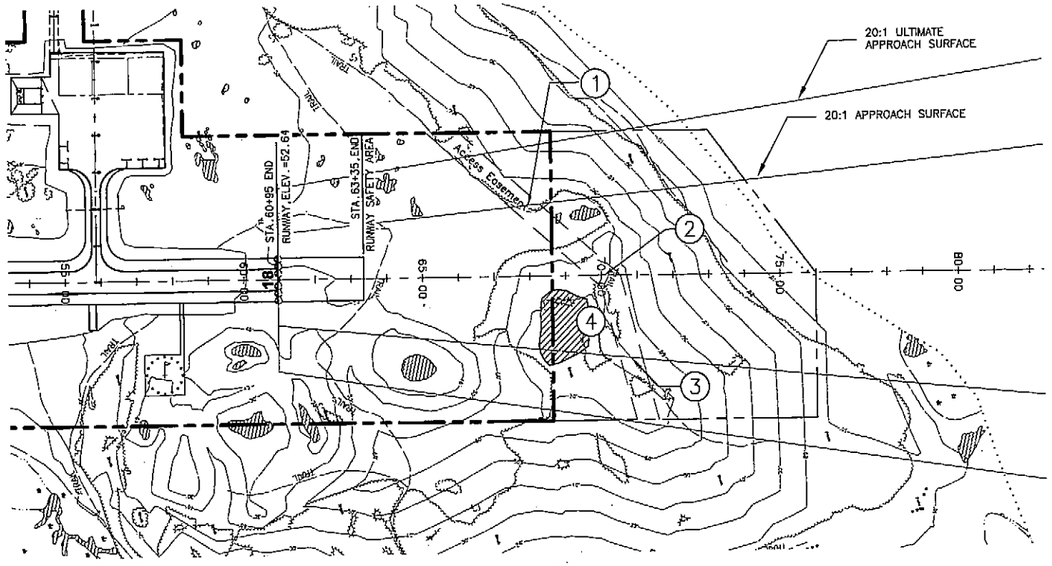
CLARKS POINT AIRPORT

AIRPORT LAYOUT PLAN

RUNWAY PLAN AND PROFILE

SHEET 3 OF 7





GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)

MAG. DEC. 16°38'(NGDC) FEB. 2004

GENERAL NOTE:

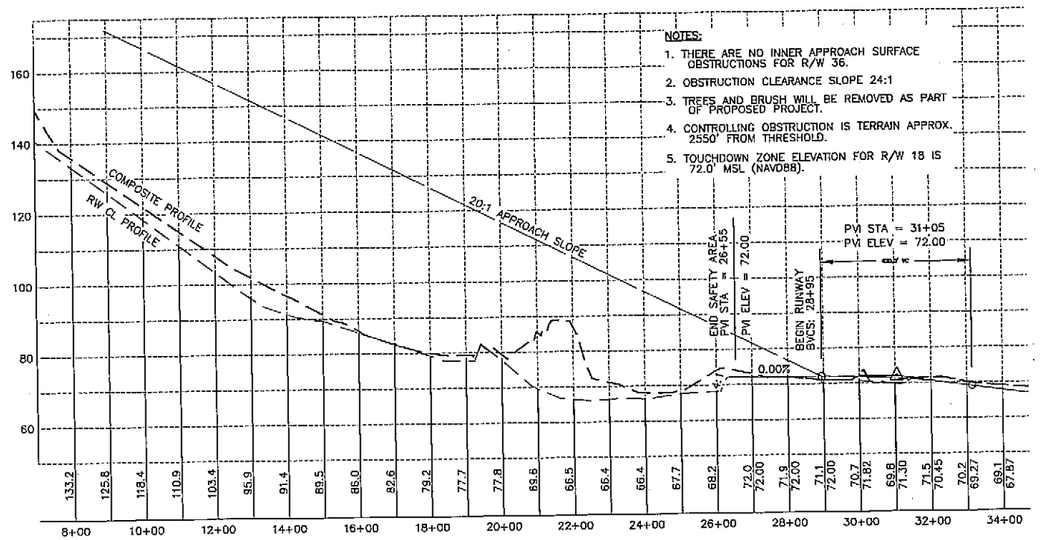
OBSTRUCTION CLEARANCE SLOPES ARE BASED ON ORDER 5010 APPENDIX 1 PARA. 57. "THE OBSTRUCTION CLEARANCE SLOPE BEGINS AT THE END OF THE PRIMARY SURFACE; AT THE END OF A GRAVEL RUNWAY."

COMPOSITE PROFILE IS BASED ON HIGHEST ELEVATION OF TERRAIN WITHIN 250 FEET LEFT OR RIGHT OF CENTERLINE.

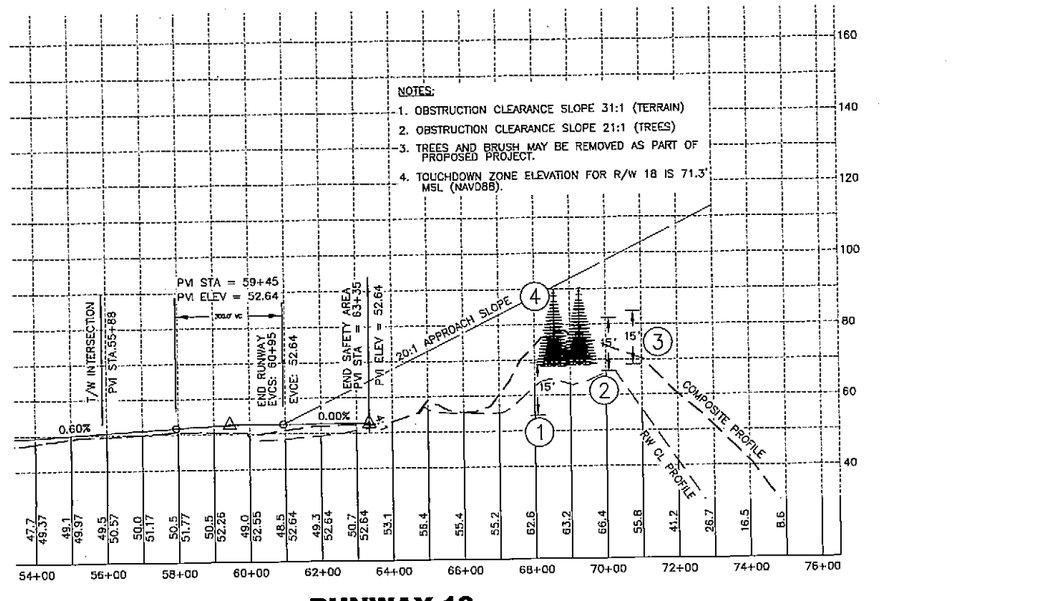
RUNWAY 18 INNER APPROACH SURFACE DATA

No.	STATION	OFFSET	OBJECT	OBJECT ELEVATION	PART 77 ELEVATION	VERTICAL CLEARANCE	AMOUNT OF PENETRATION	DISPOSITION
1	68+08	195' L	TRAIL EASEMENT	54.3'	88.3'	19'	NONE	NA
2	70+08	0	TRAIL EASEMENT	66.8'	98.3'	16.5'	NONE	NA
3	70+76	224' R	TRAIL EASEMENT	68.6'	101.7'	18.1'	NONE	NA
4	68+00 – 69+50	40' – 240' R	TREES	90.8'	87.9' – 95.4'	2'	*NONE	REMOVE

*TO REDUCE FUTURE APPROACH OBSTRUCTIONS, TREES AND BRUSH WILL BE REMOVED.



RUNWAY 36



RUNWAY 18

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ALASKAN REGION, AAL-601

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BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

APPROVED: [signature] STEPHEN M. RYAN, P.E. DESIGN SECTION CHIEF
APPROVED: [signature] HARVEY M. DOUTHIT, P.E. PROJECT MANAGER

DATE 2004
DESIGN BRH
DRAWN MCT
CHECKED TJS

CLARKS POINT AIRPORT

AIRPORT LAYOUT PLAN

INNER PORTION OF THE APPROACH SURFACES

SHEET 4 OF 7

Date Plotted:
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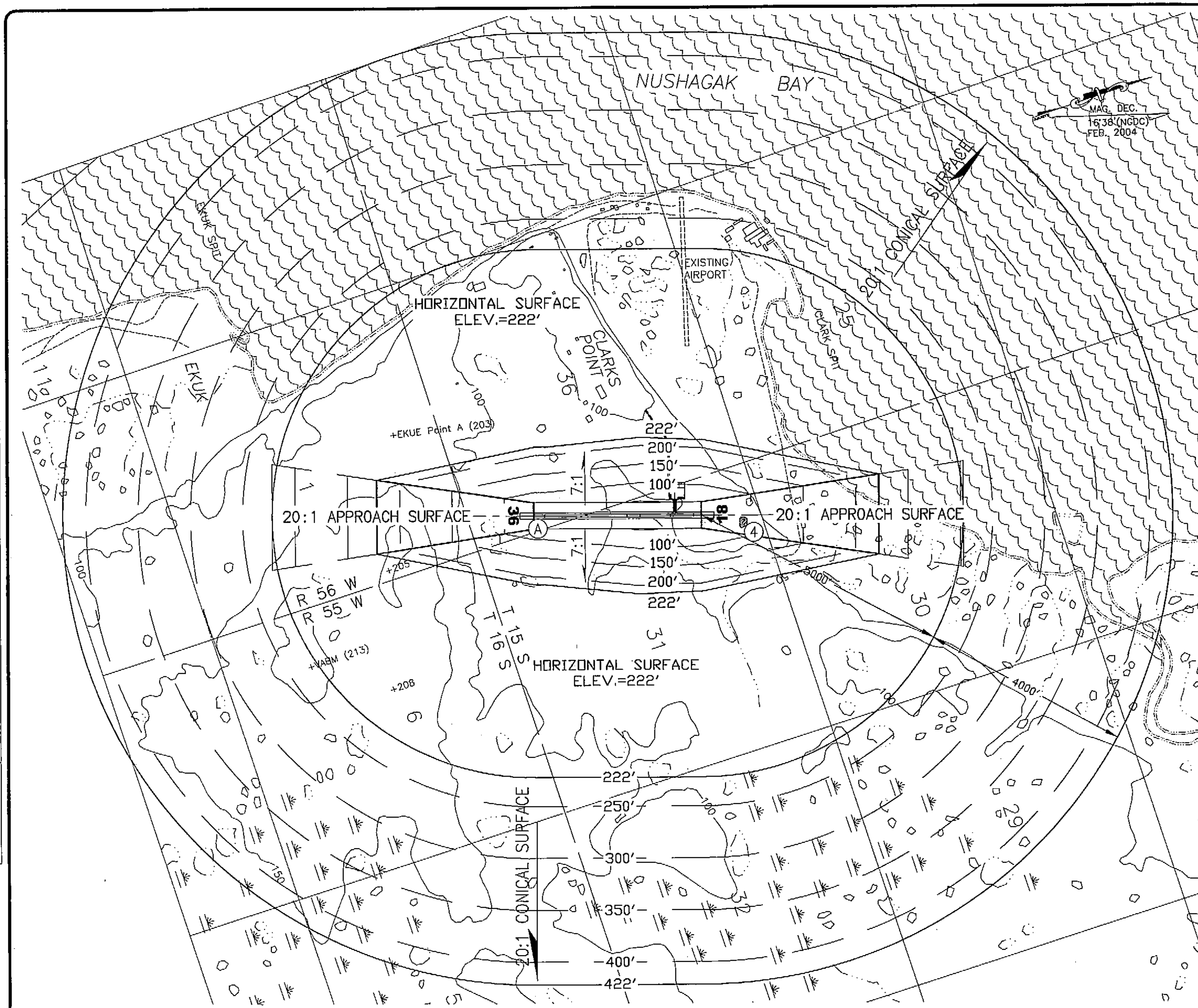
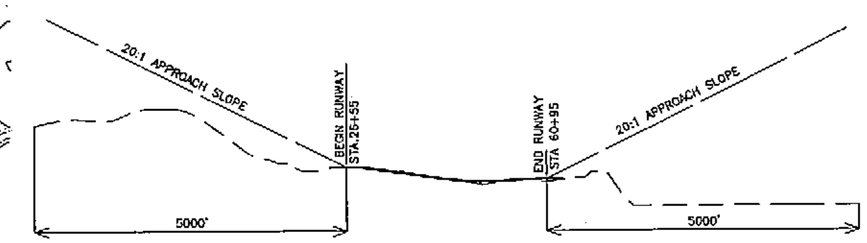


F.A.R. PART 77 IMAGINARY SURFACE OBSTRUCTION TABLE

Obstruction ID	Description	Obstruction Elevation	Surface Penetrated	Part 77 Surface Elevation	Max. Amount of Penetration	Disposition	Stage
A	TERRAIN	73.4'	PRIMARY	72'	1.4'	REMOVAL	NEAR
4	TREES	90.3'	APPROACH	87.9' – 95.4'	NONE	REMOVAL	NEAR

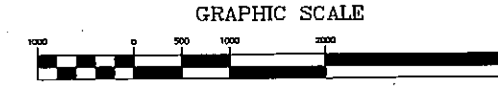
NOTES:

1. AIRPORT ELEVATION IS 72.0'
2. USGS QUADRANGLE MAPS NUSHAGAK BAY (D-2) ALONG WITH YEAR 2000 PHOTO-BASED MAPPING WERE USED FOR THE BASE MAP.
3. TO REDUCE FUTURE APPROACH OBSTRUCTIONS, TREES AND BRUSH WILL BE REMOVED.



RUNWAY PROFILE
NOT TO SCALE

GRAPHIC SCALE



(IN FEET)

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FAA, AIRPORTS DIVISION
ALASKAN REGION, AAL-601

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BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

APPROVED: [signature]
STEPHEN M. RYAN, P.E. — DESIGN SECTION CHIEF
APPROVED: [signature]
HARVEY M DOUTHIT, P.E. — PROJECT MANAGER

DATE 2004
DESIGN BRH
DRAWN MGT
CHECKED TJS

CLARKS POINT AIRPORT

AIRPORT LAYOUT PLAN

AIRPORT AIRSPACE

SHEET 5 OF 7

PROPERTY STATUS

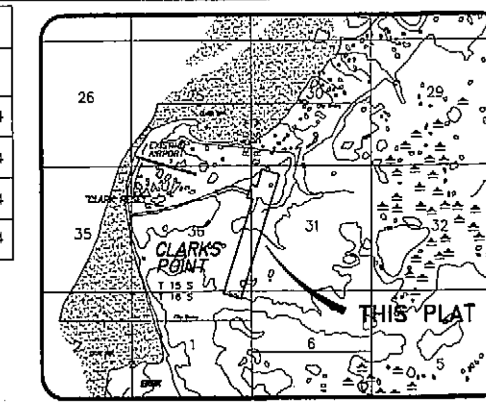
Parcel Number	Area	Grantor	DOT & PF Interest	Date Acquired	Acquired Under A.I.P. No.
1	0.27 ha± 0.7 Ac.±	Saguyak, Inc.	Fee (Surface) Spc. Warranty Deed Bk 54 Pg 216	11/23/99	3-02-0062-02
		Bristol Bay Native Corp.	Subsurface Easement & Restrictive Covenant, Bk 54 Pg 240	2/29/00	3-02-0062-02
2	13.28 ha± 32.8 Ac.±	City of Clarks Point	Fee (Surface), Bk 54 Pg 222	2/10/00	3-02-0062-02
		Bristol Bay Native Corp.	Subsurface Easement & Restrictive Covenant, Bk 54 Pg 240	2/29/00	3-02-0062-02
3	16.39 ha± 40.5 Ac.±	Saguyak, Inc.	Fee (Surface) Spc. Warranty Deed Bk 54 Pg 216	11/23/99	3-02-0062-02
		Bristol Bay Native Corp.	Subsurface Easement & Restrictive Covenant, Bk 54 Pg 240	2/29/00	3-02-0062-02
4	0.30 ha± 0.8 Ac.±	Julia W. Nicolai	Fee, Warranty Deed Bk 54 Pg 848	10/10/00	3-02-0062-02

PROPERTY STATUS

Parcel Number	Area	Grantor	DOT & PF Interest	Date Acquired	Acquired Under A.I.P. No.
5	10.98 ha± 27.1 Ac. ±	Carl W. Nicolai	Fee Warranty Deed Bk 54 Pg 480	8/07/00	3-02-0062-02
6		~~Choggiung, Ltd.~~	~~Fee (Surface)~~		Not to be Acquired
		~~Bristol Bay Native Corp.~~	~~Fee (Surface)~~		Not to be Acquired
7	1.72 ha± 4.3 Ac. ±	City of Clarks Point	Fee (Surface), Bk 54 Pg 222	2/10/00	3-02-0062-02
		Bristol Bay Native Corp.	Subsurface Easement & Restrictive Covenant, Bk 54 Pg 240	2/29/00	3-02-0062-02
8	0.49 ha± 1.2 Ac. ±	City of Clarks Point	Fee Ltd. Warranty Deed Bk 54 Pg 228	2/10/00	3-02-0062-02

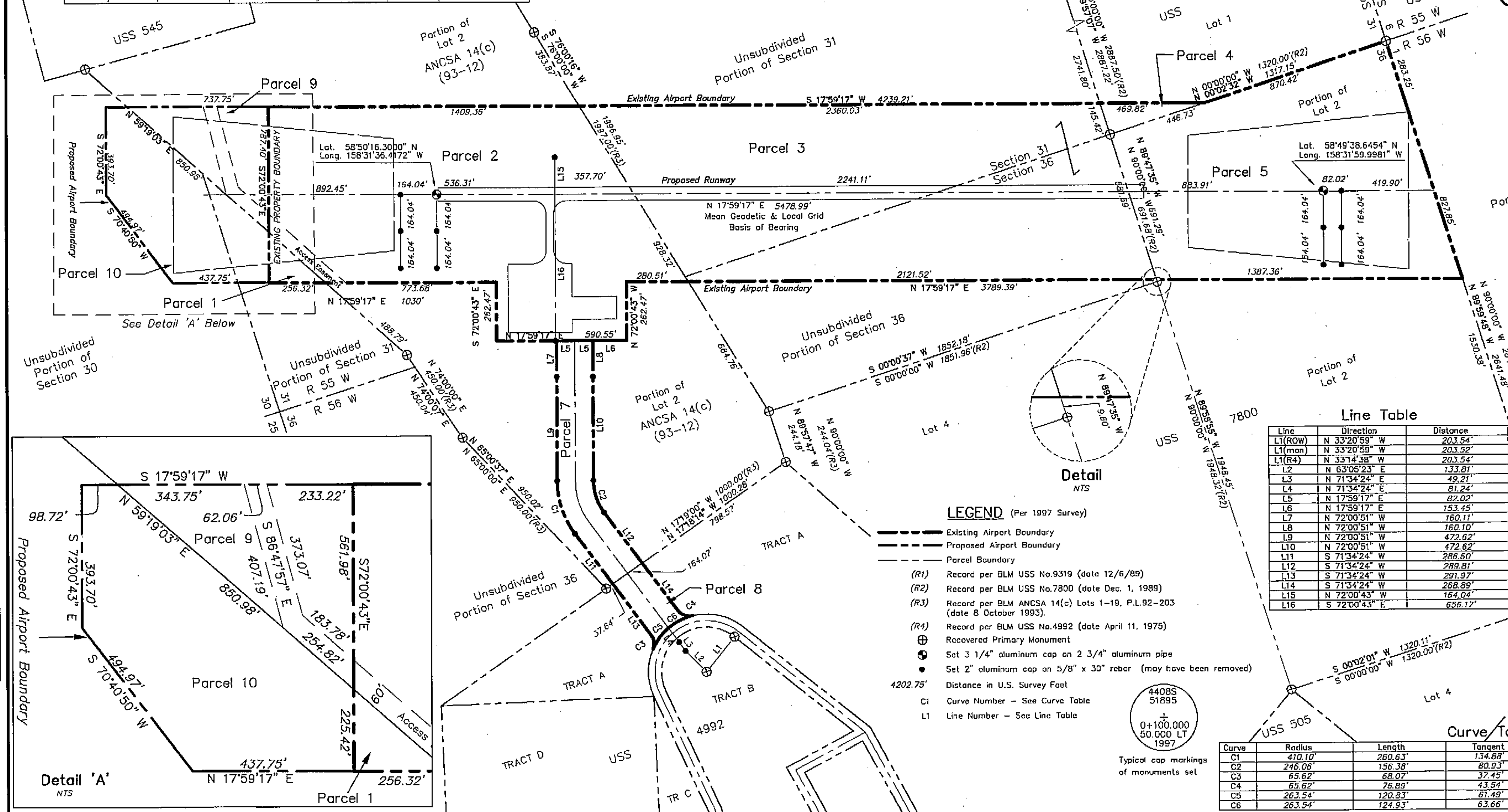
PROPERTY STATUS

Parcel Number	Area	Grantor	DOT & PF Interest	Date Acquired	Acquired Under A.I.P. No.
9	1.6682 ha± 4.122 Ac.±	City of Clarks Point	Fee (Surface), Bk 53 Pg 488	TBA	03-02-0062-0304
		Bristol Bay Native Corp.	Subsurface Easement & Restrictive Covenant, Bk 21 Pg 650	TBA	03-02-0062-0304
10	3.1799 ha± 7.858 Ac.±	Saguyak, Inc.	Fee (Surface) Spc. Warranty Deed Bk 21 Pg 678	TBA	03-02-0062-0304
		Bristol Bay Native Corp.	Subsurface Easement & Restrictive Covenant, Bk 21 Pg 650	TBA	03-02-0062-0304



VICINITY MAP

Scale = 1:50,000
U.S.G.S. Nushagak Bay (D-2)
Surveyed T15&16S, R55&56W, S.M.
Bristol Bay Recording District



LEGEND (Per 1997 Survey)

- Existing Airport Boundary
- Proposed Airport Boundary
- Parcel Boundary
- (R1) Record per BLM USS No.9319 (date 12/6/89)
- (R2) Record per BLM USS No.7800 (date Dec. 1, 1989)
- (R3) Record per BLM ANCSA 14(c) Lots 1-19, P.L.92-203 (date 8 October 1993).
- (R4) Record per BLM USS No.4992 (date April 11, 1975)
- ⊕ Recovered Primary Monument
- Set 3 1/4" aluminum cap on 2 3/4" aluminum pipe
- ● Set 2" aluminum cap on 5/8" x 30" rebar (may have been removed)
- 4202.75' Distance in U.S. Survey Feet
- C1 Curve Number – See Curve Table
- L1 Line Number – See Line Table

4408S 51895 0+100.000 50.000 LT 1997

Typical cap markings of monuments set

Notes

1. Field survey performed by Alaskan Consulting Surveyors 06/06/97 through 06/21/97.
2. Project bearings are local bearings oriented to the mean NAD83 Geodetic Bearing of the runway centerline. The Basis of Geodetic Bearings is the mean NAD83 Geodetic Bearing between USGS Station "Clark Reset" and USGS Station "Clark Azimuth Mark" (N 09°21'44.20" E) according to the May 14, 1994 NGS data sheets.
3. The Bearings shown are local plane bearings as oriented to the basis of bearings, and distances shown are reduced to horizontal ground distances.
4. The Basis of Coordinates is Control Station "CLARK Reset".
   Latitude: 58°50'03.993" N
   Longitude: 158°33'26.134" W
5. The minimum closure of field traverses exceeds 1:10,000.
6. Parcels 7 & 8 are for right of way uses.

Line Table

Line	Direction	Distance
L1(ROW)	N 33°20'59" W	203.54'
L1(mon)	N 33°20'59" W	203.52'
L1(R4)	N 33°14'38" W	203.54'
L2	N 63°05'23" E	133.81'
L3	N 71°34'24" E	49.21'
L4	N 71°34'24" E	81.24'
L5	N 17°59'17" E	82.02'
L6	N 17°59'17" E	153.45'
L7	N 72°00'51" W	160.11'
L8	N 72°00'51" W	160.10'
L9	N 72°00'51" W	472.62'
L10	N 72°00'51" W	472.62'
L11	S 71°34'24" W	286.60'
L12	S 71°34'24" W	289.81'
L13	S 71°34'24" W	291.97'
L14	S 71°34'24" W	268.89'
L15	N 72°00'43" W	164.04'
L16	S 72°00'43" E	656.17'

Curve Table

Curve	Radius	Length	Tangent	Chord	Bearing	Delta
C1	410.10'	260.63'	134.88'	256.26'	N 89°46'46" E	36°24'44"
C2	246.06'	156.38'	80.93'	153.76'	S 89°46'46" W	36°24'44"
C3	65.62'	68.07'	37.45'	65.06'	S 78°42'32" E	59°26'08"
C4	65.62'	76.89'	43.54'	72.56'	N 38°00'21" E	67°08'06"
C5	263.54'	120.83'	61.49'	119.77'	N 35°51'24" W	26°16'07"
C6	263.54'	124.93'	63.66'	123.76'	N 09°08'31" W	27°09'39"

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO ALP APPROVAL LETTER DATED 6/18/04

By: [signature] DATE: 6/18/04
FAA, AIRPORTS DIVISION
ALASKAN REGION, AAL-601

F.A.A. AIRSPACE REVIEW NUMBER: 04-AAL-45-NRA

BY	DATE	REVISIONS
plh	6/26/01	Revised Parcel 6, added Parcels 9 & 10
plh	12/11/00	Revised Property Status Table, Parcel 4
plh	8/23/00	Revised Property Status Table
plh	8/11/00	Revised Property Status Table

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

APPROVED: [signature] STEPHEN M. RYAN, P.E. — DESIGN SECTION CHIEF
APPROVED: [signature] HARVEY M. DOUTHIT, P.E. — PROJECT MANAGER

DATE ______
DESIGN ______
DRAWN GJR/JK
CHECKED LGR

CLARKS POINT
AIRPORT LAYOUT PLAN
PROPERTY PLAN
EXHIBIT 'A'
SHEET 1 OF 1

SHEET 6 OF 7

CLARKS POINT AIRPORT

AIRPORT LAYOUT PLAN NARRATIVE REPORT

A. Purpose

This Narrative Report is included with the Airport Layout Plan for Clarks Point, Alaska, in accordance with FAA Airport Design AC 150/5300- 13 CHG. 7 & Airport Layout Plan Checklist, revised for Alaskan Region – December 15, 2003. The rationale for improvements to the Clarks Point Airport is outlined in this report.

B. Introduction

The community of Clarks Point lies at the southern end of Combine Flats on the eastern shore of Nushagak Bay in the Bristol Bay region. Clarks Point is approximately 15 miles south of Dillingham, at latitude 58'84.5'72"N and longitude 158'51.5'71"W.

The Nushagak Packing Company established a packing facility at Clarks Point in 1888. There is no record of habitation at this location prior to this time, but the site is near a traditional Yup'ik Eskimo camp. Trident Seafood Corporation has recently closed a fishing support facility here for its processors and fishing fleet, which included an office, bunkhouse, and supply station. There are no longer any boats stored at the facility over the winter.

The village developed on a narrow spit bordered on one side by Nushagak Bay and on the other side by marshlands. As a result of repeated floods and erosion, the village was relocated to the top of the bluff overlooking the cannery in the early 1980s. In addition to the old cannery, only the council offices, clinic, and a small number of residences are still located on the spit. Commercial fishing, subsistence hunting and fishing are the primary economic base of the community. Eighteen residents hold commercial fishing permits. During the salmon season, hundreds of commercial fishermen fish the waters of Nushagak Bay. The village of Ekuk, located 2 miles south of Clarks Point, is currently in the process of possibly reopening a fishing cannery. At this point, however, there are no definite plans for reopening the cannery, and no accessible road exists between Ekuk and Clarks Point.

The Alaska Department of Community and Regional Affairs (DCRA) reports the 2003 population of Clarks Point to be 66. This figure is based on a State Demographer's estimate. The community incorporated as a second–class city in 1971. Population has fluctuated over the last 55 years but has generally hovered between 60 and 70 since 1980. The population increases by 50–100 from early April through early August during the herring and salmon fishing seasons. Trident Seafood Corporation recently closed, so these figures are not expected to increase. The population figure projected for the 20–year planning period through to 2025 is 71, the average of population levels for the years 1980 through 2000.

C. Airport Usage and Forecasts

The Alaska Aviation System Plan (AASP) classifies Clarks Point Airport as a "community airport." A community class airport is defined as the "primary land or water access point to a small rural community of at least 25 permanent year round residents without other reliable year round access." The Clarks Point classification is not expected to change.

Flights at the Clarks Point Airport support passenger traffic, medical evacuations, school activities, and mail and cargo distribution. As of February 2004, Peninsula Airways (Penair), Grant Aviation Inc., Arctic Circle Air Service Inc., Alaska Island Air Inc., Bristol Bay Air Service, Shannon's Air Taxi, Tucker Aviation Inc., and Mulchatna Air Service Inc. provided service to the community. The primary aircraft used by these operators are the Cessna 207 and Piper Navajo. Other aircraft include the Piper Saratoga and Cherokee, Cessna Caravan, and Short Brothers Skivan. Yute Air and Starflite Inc. are no longer flying to Clarks Point Airport now or in the future.

Passenger enplanement activity (the total number of people leaving the airport by plane) reported between 1984 and 1994 averaged 2,980. Enplanement numbers, reflecting population trends, remained relatively stable during that time. Passenger enplanements for 2001 was reported to be 1,796, and decreased in 2002 to 1,307 (DOT filing form 298–C TI or EI and FAA filing form 1800–31). In 2003, through November, passenger enplanements totaled 1,437 (Office of Airline Information T–100 Reporting System). Between 1994 and 2001, there has been a decrease in enplanements, perhaps due to the closing of the Trident Seafood Corporation fishing cannery.

Clinic personnel report that the number of patients requiring medical evacuation varies from year to year. The Kanakanak Hospital in Dillingham has a contract with Penair to provide medical evacuation services, but other operators, including Bristol Bay Air Service, may be used depending on the emergency and the availability of a plane. Penair generally uses a specially equipped Navajo for medical evacuations. A Cherokee is also available. The trip to Dillingham takes 15 minutes.

Forecasts of future airport use are developed using information on historic levels and trends in enplanements, aircraft operations, the type of aircraft currently using or expected to use an airport, and socioeconomic and demographic factors. Accurate operations information is often limited for Alaska's small, rural communities.

The FAA categorizes five types of operations: air taxi, commuter, general aviation (local or itinerant), air carrier, and military. No air taxis are based at Clarks Point: the community is served by air taxis based in Dillingham. Locally based operators are not anticipated to occur in the near future. Several general aviation aircraft are parked at the airport year–round and this number increases temporarily during the fishing season. No military aircraft currently use or are expected to use the airport at Clarks Point during the planning period. The results of an air operator's survey indicated that scheduled air services are four times greater than charter operations.

Table 1 Air Operations Forecasts	
Item	2005 (Estimated)
Total Annual Operations	3,800
Annual Local Operations	2,950
Annual Itinerant Operations	850
Annual Enplanements	1,990
Annual Instrument Approaches	0
Annual Scheduled Operations	2,950
Annual Non–Scheduled Operations	850

The number of aircraft operations (the number of aircraft landing at the airport) is not expected to increase in 20 years. These estimates are based on forecasts of population and of seasonal workers in the community, current activity levels, and written and phone surveys of the carriers. These parameters were considered to be a better predictor of future activity than combining the traditional forecasting parameters of future operations with future aircraft type.

The fleet mix that serves Clarks Point includes design group A–I aircraft, (Cessna 207 and 208; Piper Cherokee) and design group B–I aircraft (Piper Navajo). For the long term (the 20 year planning period), the ability of airport improvements to accommodate both the aircraft that currently use the airport, as well as the aircraft that will potentially use the airport were considered. Near–term development will accommodate design group B–I aircraft. The approach speed, wingspan, and maximum takeoff weight of the Piper Navajo are 100 knots, 40 feet 8 in, and 6,500 lb, respectively. Local trends indicate air taxi operators will select design group B–II aircraft for fleet upgrades. However, with the proximity of Clarks Point to Dillingham, it is more likely that Clarks Point will be serviced by A–II category aircraft such as the Cessna Grand Caravan, with a 79–knot approach speed, 52.1–foot wingspan, and 8,750–lb takeoff weight, and B–I category light twins such as Piper Navajos and Cessna 402s. These aircraft will be accommodated by the proposed improvements described below.

D. Stage Development

Development of the Clarks Point Airport for the 20 year planning period will be in three stages: near–term (0–5 years), mid–term (6–10 years), and long–term (11–20 years). The primary objectives of this airport development are to relocate the airport away from the Nushagak Bay floodplain and to upgrade airport features to Category B–I standards. Construction of the relocated Clarks Point Airport has been split into two stages, Stage I and Stage II, and these are explained below.

Stage I – Construction of the airport began in the spring of 2001, where the embankments were constructed for the runway, taxiway, apron and access road. The lack of good quality material and poor embankment stability led to the decision to postpone the completion of the airport.

Stage II – After several years, the decision was made to determine if the embankment was stable. Results of a 2003 survey and a geotechnical investigation at Clarks Point Airport led to the conclusion that the embankment was stable enough to complete construction of the airport. In Stage II, the runway, taxiway, apron, and access road will be surfaced with gravel, a snow removal equipment building, a new segmented circle pad embankment will be constructed, and wind cones will be installed. All of these items are discussed further in the near–term development plan.

Near–term (0–5 years)

During near–term development, construction of the relocated Clarks Point Airport will be completed in compliance with B–I standards. Components include a runway, taxiway, apron and aviation support area, double bay snow removal equipment building (SREB) and access road. Construction costs to complete the airport are estimated to be $4.0 million. Including initial construction costs of $2.7 million, the total estimate to complete the Clarks Point Airport relocation project is approximately $6.7 million.

1. Surface the runway 60 feet wide and 3,200 feet long with gravel, along with 10–foot wide shoulders. The safety area shall be 120 feet wide and extend 240 feet beyond the runway ends.

2. Surface the taxiway 25 feet wide and 310 feet long and the 10–foot shoulders with gravel. The taxiway extends from the face of the apron to the centerline of the runway with a safety area 61 feet wide and 310 feet long.

3. Construct a new embankment for the segmented circle pad 110 feet by 110 feet. It shall be offset 200 feet from the runway centerline, which is outside the OFA for a B–II runway. This will allow construction of a B–II runway if warranted without having to relocate the segmented circle.

4. Surface the apron 210 feet by 290 feet with gravel as well as an aviation support area and a maintenance and operations lot. The aviation support area (100 feet by 290 feet), which includes the three lease lots, and the maintenance and operations lot (100 feet by 110 feet) shall be contiguous to the apron.

5. Surface the access road 24 feet wide and approximately 1,570 feet long with gravel.

6. Other work will include: construction of a double–bay SREB, runway and taxiway lighting, a segmented circle with a lighted wind cone and one additional unlighted wind cone will be installed.

Mid–term (6–10 years)

There are no mid term development plans for the Clarks Point Airport.

Long–term (11–20 years)

Long term development plans include reshaping and resurfacing the embankment and runway with gravel, which is estimated to cost $1.5 million.

E. Design Rationale

1. Airport Reference Code

The existing runway is designed to A–I standards. However, Penair and Grant Aviation Inc., which are the two air operators that provide twice–daily scheduled service to Clarks Point Airport, both reported that they fly Piper Navajos (design group B–I aircraft) to Clarks Point Airport. The existing runway is not sufficient for the air operators that use it most often. Therefore, near–term development will be designed for Category B–I standards.

2. Wind Coverage

Wind data is not available for Clarks Point, several years of wind data collected at Dillingham was used to perform wind coverage analysis. Local information indicates that wind conditions at the two communities are similar. The existing runway alignment, azimuth 105–285, provides 84% coverage for 10.5–knot crosswind component. The wind coverage for the new runway, azimuth 018–198, is approximately 95% at 10.5 knots.

3. Runway

According to the FAA AC 150/5325–4 for design group B–I aircraft, the runway must be a minimum 3,200 feet long to accommodate 100% of design aircraft. According to AC 150/5300–13 CHG 7 for design group B–I aircraft, the runway must be 60 feet wide with a 10 feet wide shoulder. The safety area must be a minimum 120 feet wide and extend 240 feet beyond the runway ends. There must be a runway protection zone at both runway ends. The runway protection zone must be 1000 feet long by 500 feet wide 200 feet from the runway end, and 700 feet wide 1,200 feet from the runway end. The runway obstacle free zone (OFZ) must be 400 feet wide and extend 200 feet beyond each end of the runway.

4. Taxiway

The runway must be connected to the apron and aviation support area by a taxiway 25 feet wide and 310 feet long from the face of the apron to the centerline of the runway. The safety area must be 61 feet wide for the length of the taxiway in order to meet grade requirements.

5. Apron

The AASP recommends the apron be 60,000 square feet and should include an aviation support area. The apron will be 60,900 square feet or 290 feet by 210 feet, and the aviation support area will be 100 feet by 290 feet, developed contiguous to the apron. An additional maintenance and operations lot, 100 feet by 110 feet, will be developed adjacent to the aviation support area.

One double–bay SREB with a concrete foundation will be constructed on the apron. In the Assurances for Airport Sponsors (c. 24; pg. 12), FAA requires the airport sponsor to make the airport as self–sustaining as possible (Appendix E, E.17). With few opportunities for revenue generation at bush community airports, it is prudent to encourage the development of lease lots up to grade with the apron. The new apron will be a greater distance from the town, requiring users to rely on facilities at the airport rather than on facilities in town to wait for flights and handle or store cargo. If lease lots are not developed at the time of airport construction, the cost of their development would become prohibitive. Construction of lease lots at a future date would involve remobilizing construction equipment and crews from outside the community, reopening materials sources, and purchasing and barging a smaller quantity of surfacing material.

For this reason, it is recommended that the apron design allow for 5 aircraft tie–downs (two for aircraft based at the airport and three for itinerant aircraft), a cargo and passenger loading area, and a taxi lane. Because of the small volume expected, parking for ground transportation can be accommodated within the aviation support area. This apron configuration works well for small, rural airports where one apron serves all the airport needs.

6. Access Road

The access road would be 24 feet wide and approximately 1,570 feet long and extend from the apron to the east end of Bayou Loop.

F. Property Status

The existing Clarks Point Airport is operated by DOT&PF and is located on approximately 74 acres of land owned by the City of Clarks Point. Land ownership in the area of the new airport is a mix of village corporation lands and Native allotments. A new property plan has been completed for the new airport and access road. The proposed airport is situated on 107 acres, and DOT&PF is pursuing acquisition of an additional 12 acres of land for the runway 18 RPZ. DOT&PF is attempting to acquire all lands fee simple as necessary to enclose the RPZ prior to construction. Since the RPZ will only require tree removal, and DOT&PF currently has all of the lands necessary to construct the new airport and access road, DOT&PF will not have to postpone construction even if the 12 acres for the runway 18 RPZ have not been acquired.

Table 2 Clarks Point Airport Design Standards Existing Runway 08/26 and New Runway 18/36			
Item	Existing Conditions	Standard (B–I)	Proposed
Runway Length	2,600 ft	3,200 ft	3,200 ft
Runway Width	85 ft	60 ft	60 ft
Runway Safety Area Width	100 ft	120 ft	120 ft
Runway Safety Area Length	2,730 ft	3,680 ft	3,680 ft
Taxiway Width	n/a	25 ft	25 ft
Taxiway Safety Area Width	n/a	49 ft	61 ft
Taxiway Object Free Area Width	n/a	89 ft	89 ft
Runway Centerline to Edge of Aircraft Parking	n/a	200 ft	200 ft
RPZ Length	n/a	1,000 ft	1,000 ft
RPZ Inner Width	n/a	500 ft	500 ft
RPZ Outer Width	n/a	700 ft	700 ft
Approach Slope Angle	20:1	20:1	20:1

G. Clarks Point Landfill Site

The landfill and sewage lagoon for the community of Clarks point is located approximately 4,500 feet and 3,300 feet, respectively, from the new airport site. Both facilities will be within 5,000 feet of the runway, which violates the siting criteria specified in AC No. 150/5200–33 for airports serving piston–powered aircraft. The FAA stated in a letter, dated April 30, 1998, that it does not object to proposed sewage lagoon and landfill separation based on improvement to the current conditions and the limited number of acceptable airport sites.

H. Community Involvement

The residents of Clarks Point have been informed of the planned development by the Alaska DOT&PF. The completion of this project required an environmental assessment that provided opportunity for community involvement and input. Letters from residents are on file at DOT&PF, Central Region offices.

I. Modifications to Standards

None.

J. Encroachments into Part 77 Surfaces

The proposed Clarks Point Airport will be a utility airport with visual 20:1 approaches and a 250–foot primary surface. Trees are expected to encroach into the FAR Part 77 Imaginary approach surfaces for runway 18 and 36 within a few years and will be removed as part of this project. For the ultimate, non–precision instrument runway, terrain penetrates the 500–foot primary surface for runway 36, and will be removed.

K. Appendix II Threshold Siting Criteria

Utilizing AC 150/5300–13 chg7, Appendix 2, there are no threshold siting penetrations to surfaces as described in paragraph a, b, c, or d criteria for runway 18 or 36.

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL
SUBJECT TO ALP APPROVAL LETTER DATED 6/18/04

By: [signature] DATE: 6/18/04
FAA, AIRPORTS DIVISION
ALASKAN REGION, AAL–601

F.A.A. AIRSPACE REVIEW NUMBER: 04–AAL–45–NRA

BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

APPROVED: [signature] STEPHEN M. RYAN, P.E. — DESIGN SECTION CHIEF
APPROVED: [signature] HARVEY M. DOUTHIT, P.E. — PROJECT MANAGER

DATE 2004
DESIGN BRH
DRAWN MGT
CHECKED TJS

CLARKS POINT AIRPORT

AIRPORT LAYOUT PLAN
NARRATIVE REPORT

SHEET 7 OF 7

Date Plotted: 5/11/2004 5:04:38 AM ADT
Plot Ratio and Layout: 1=1, layout=V1
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